### **LESSON PLAN** WORLDGEOGRAPHY

GRADE 7

Lesson plans are important for teachers.

- Provides Structure and Organization: Lesson plans offer structure and organization for teachers to follow in their classrooms. It ensures that teachers cover all necessary material in a logical and organized manner.
- Helps to Meet Learning Objectives: A well-written lesson plan helps teachers to identify and achieve their learning objectives. It provides clear guidance on what needs to be taught, how it should be taught, and what outcomes should be achieved.
- Helps to Engage Students: Lesson plans help teachers engage students by incorporating various activities and teaching strategies that appeal to different learning styles. By varying their instruction, teachers can keep students engaged and motivated.
- Facilitates Assessment and Evaluation: A lesson plan helps teachers to assess and evaluate student learning. By clearly stating the learning objectives and the expected outcomes, teachers can measure how well students have understood the material.
- Encourages Reflection and Improvement: A well-crafted lesson plan allows teachers to reflect on their teaching practices and identify areas for improvement. It provides a framework for teachers to evaluate their performance and make adjustments for future classes.

### Geography 7 1<sup>st</sup> Term Week 1 Day 1

Teacher's Name:\_\_\_\_\_ Duration: 45 Mins Title: Introduction to Plains and Rivers Grade level: 7

**Objective:** 

Students will learn about the basic characteristics of plains and rivers. Students will be able to identify the different types of plains and rivers found around the world. Students will be able to explain the significance of plains and rivers in shaping the landscapes, climate, and human activities. Students will be able to analyze the factors that contribute to the formation and evolution of plains and rivers.

Materials:

Computer with internet access Projector or smartboard Handouts on the characteristics of plains and rivers Worksheet on the types of plains and rivers Pen/pencil for each student

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Date:

#### **Procedure:**

#### Introduction (10 minutes)

Ask students what they know about the geography of their local area.

Introduce the lesson topic and explain that plains and rivers are two of the most common landforms found around the world.

Provide a brief overview of the characteristics of plains and rivers.

#### **Out loud Reading**

#### Types of Plains and Rivers (20 minutes)

Use a projector or smartboard to show maps and pictures of different types of plains and rivers around the world, such as the Great Plains in North America or the Nile River in Africa.

Hand out a worksheet on the types of plains and rivers and have students work in pairs to complete it.

Go over the answers as a class and ask students to describe the physical features, climate, and human activities associated with each type of plain and river.

#### Significance of Plains and Rivers (20 minutes)

Use a projector or smartboard to show pictures or videos of the plains and rivers around the world and their impact on landscapes, climate, and human activities, such as agriculture, transportation, and recreation.

Hand out a worksheet on the significance of plains and rivers and have students work in pairs to complete it.

Go over the answers as a class and ask students to analyze the advantages and challenges of living and working on plains and rivers.

#### Formation and Evolution of Plains and Rivers (20 minutes)

Use a projector or smartboard to show pictures or videos of the different factors that contribute to the formation and evolution of plains and rivers, such as tectonic movements, erosion, and deposition. Hand out a worksheet on the formation and evolution of plains and rivers and have students work in pairs to complete it.

Go over the answers as a class and ask students to identify the physical, geological, and human factors that affect the formation and evolution of plains and rivers.

#### Case Study: Mississippi River (30 minutes)

Provide a case study on the Mississippi River and ask students to identify the physical and human factors that have shaped the river, the economic and cultural significance of the river, and the environmental challenges and opportunities associated with the river. Divide the class into small groups and have them present their findings to the class. Facilitate a whole-class discussion and ask students to share their insights and perspectives on the case study.

#### **Discussion and Debate (30 minutes)**

Divide the class into small groups and ask them to discuss and debate the potential solutions and strategies to balance the conservation and development of plains and rivers around the world.

Encourage students to use evidence and reasoning to support their arguments.

Facilitate a whole-class discussion and ask students to share their insights and perspectives.

#### **Conclusion (10 minutes)**

Ask students to reflect on what they learned about plains and rivers and how they can be better stewards of these important landforms.

Encourage students to think about the potential solutions and strategies to balance the conservation and development of plains and rivers around the world.

#### Home Work:

Dear Teachers, you will decide according to your school policy.

<u>Fo</u>	r Teachers:
How did you meet the individual learning needs of your stude	ents?
Les	son Evaluation:
Strengths	Areas for improvement
Identify a way forward to improve this lesson	



#### **Objective:**

Students will learn about the basic characteristics of mountains and plains.

Students will be able to identify the different types of mountains and plains found around the world.

Students will be able to explain the significance of mountains and plains in shaping the landscapes, climate, and human activities.

Students will be able to analyze the factors that contribute to the formation and evolution of mountains and plains.



Ask students what they know about mountains and plains.

Introduce the lesson topic and explain that mountains and plains are two of the most common landforms found around the world. Provide a brief overview of the characteristics of mountains and plains.

#### **Types of Mountains and Plains (20 minutes)**

Use a projector or smartboard to show maps and pictures of different types of mountains and plains around the world, such as the Himalayas in Asia or the Great Plains in North America.

Hand out a worksheet on the types of mountains and plains and have students work in pairs to complete it.

Go over the answers as a class and ask students to describe the physical features, climate, and human activities associated with each type of mountain and plain.

#### Significance of Mountains and Plains (20 minutes)

Use a projector or smartboard to show pictures or videos of the mountains and plains around the world and their impact on landscapes, climate, and human activities, such as mining, tourism, and agriculture. Hand out a worksheet on the significance of mountains and plains and have students work in pairs to complete it. Go over the answers as a class and ask students to analyze the advantages and challenges of living and working on mountains and plains.

#### Formation and Evolution of Mountains and Plains (20 minutes)

Use a projector or smartboard to show pictures or videos of the different factors that contribute to the formation and evolution of mountains and plains, such as tectonic movements, erosion, and deposition.

Hand out a worksheet on the formation and evolution of mountains and plains and have students work in pairs to complete it.

Go over the answers as a class and ask students to identify the physical, geological, and human factors that affect the formation and evolution of mountains and plains.

#### Case Study: Rocky Mountains and Great Plains (30 minutes)

Provide a case study on the Rocky Mountains and Great Plains and ask students to identify the physical and human factors that have shaped the landscapes, the economic and cultural significance of the region, and the environmental challenges and opportunities associated with the region.

Divide the class into small groups and have them present their findings to the class.

Facilitate a whole-class discussion and ask students to share their insights and perspectives on the case study.

**Out loud Reading** 

#### **Discussion and Debate (30 minutes)**

Divide the class into small groups and ask them to discuss and debate the potential solutions and strategies to balance the

conservation and development of mountains and plains around the world.

Encourage students to use evidence and reasoning to support their arguments.

Facilitate a whole-class discussion and ask students to share their insights and perspectives.

#### Conclusion (10 minutes)

Ask students to reflect on what they learned about mountains and plains and how they can be better stewards of these important landforms.

Encourage students to think about the potential solutions and strategies to balance the conservation and development of mountains and plains around the world.

#### Home Work:

Dear Teachers, you will decide according to your school policy.

Fo	r Teachers:
How did you meet the individual learning needs of your stude	ents?
Les	son Evaluation:
Strengths	Areas for improvement
Identify a way forward to improve this lesson	

Day 3	
Teacher's Name:	Date:
Duration: 45 Mins	
Title: Types of Plains: Erosional Plains	
Grade level: 7	

#### **Objective:**

Students will learn about the characteristics of erosional plains.

Students will be able to identify the different types of erosional plains found around the world.

Students will be able to explain the significance of erosional plains in shaping the landscapes, climate, and human activities.

Students will be able to analyze the factors that contribute to the formation and evolution of erosional plains.



#### Introduction (10 minutes)

Ask students what they know about plains and how they are formed.

Introduce the lesson topic and explain that erosional plains are a type of plain that is formed through the process of erosion by water, wind, or ice.

Provide a brief overview of the characteristics of erosional plains.

#### **Types of Erosional Plains (20 minutes)**

Use a projector or smartboard to show maps and pictures of different types of erosional plains around the world, such as the Colorado Plateau in the United States or the Nullarbor Plain in Australia.

Hand out a worksheet on the types of erosional plains and have students work in pairs to complete it.

Go over the answers as a class and ask students to describe the physical features, climate, and human activities associated with each type of erosional plain.

#### Significance of Erosional Plains (20 minutes)

Use a projector or smartboard to show pictures or videos of the erosional plains around the world and their impact on landscapes, climate, and human activities, such as tourism, agriculture, and mining.

Hand out a worksheet on the significance of erosional plains and have students work in pairs to complete it.

Go over the answers as a class and ask students to analyze the advantages and challenges of living and working on erosional plains.

Formation and Evolution of Erosional Plains (20 minutes)

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Use a projector or smartboard to show pictures or videos of the different factors that contribute to the formation and evolution of erosional plains, such as weathering, erosion, and deposition.

Hand out a worksheet on the formation and evolution of erosional plains and have students work in pairs to complete it.

Go over the answers as a class and ask students to identify the physical, geological, and human factors that affect the formation and evolution of erosional plains.

**Out loud Reading** 

#### Case Study: Colorado Plateau (30 minutes)

Provide a case study on the Colorado Plateau and ask students to identify the physical and human factors that have shaped the landscapes, the economic and cultural significance of the region, and the environmental challenges and opportunities associated with the region.

Divide the class into small groups and have them present their findings to the class.

Facilitate a whole-class discussion and ask students to share their insights and perspectives on the case study.

#### Discussion and Debate (30 minutes)

Divide the class into small groups and ask them to discuss and debate the potential solutions and strategies to balance the

conservation and development of erosional plains around the world.

Encourage students to use evidence and reasoning to support their arguments.

Facilitate a whole-class discussion and ask students to share their insights and perspectives.

Conclusion (10 minutes)

Ask students to reflect on what they learned about erosional plains and how they can be better stewards of these important landforms.

Encourage students to think about the potential solutions and strategies.

Home Work:

Dear Teachers, you will decide according to your school policy.

	Lesso	n Evaluation:
Strengths		Areas for improvement
Identify a way forward to im	prove this lesson	

Week 2	Day 1
Teacher's Name:	Date:
Duration: 45 Mins	
Lesson Plan: Types of Depositional plan, River plan	n, piedmont alluvial fan, floodplain, deltaic plain
Grade level: 7	
	Objective:
Students will be able to identify and describe the fea alluvial fans, floodplains, and deltaic plains.	atures of different types of depositional plans including river plans, piedmont
	Materials:
Whiteboard and markers	
Pictures and diagrams of each type of plan	
Handouts with fill-in-the-blank notes	
Computer and projector for videos	
	Introduction:
Ask students if they have ever seen a river or floodn	lain and if they know how these features form
Introduce the topic of depositional plans and explain	n that they are formed by the deposition of sediment from water or wind.
Body:	Publishing House

**River Plans** 

Explain that a river plan is a depositional landform that is created by the accumulation of sediment transported by a river. Show pictures and diagrams of river plans, including the Mississippi River Delta and the Nile River Delta. Have students fill in the blank notes on the characteristics of river plans.

#### **Piedmont Alluvial Fans**

Explain that a piedmont alluvial fan is a fan-shaped depositional landform that is formed at the base of a mountain range. Show pictures and diagrams of piedmont alluvial fans, including the alluvial fans in the foothills of the Himalayas. Have students fill in the blank notes on the characteristics of piedmont alluvial fans.

#### Floodplains

Explain that a floodplain is a flat area of land that is adjacent to a river and is periodically flooded by the river. Show pictures and diagrams of floodplains, including the floodplains of the Amazon River and the Mississippi River. Have students fill in the blank notes on the characteristics of floodplains.

#### **Deltaic Plains**

Explain that a deltaic plain is a triangular-shaped depositional landform that is formed where a river meets a larger body of water, such as an ocean or lake.

Show pictures and diagrams of deltaic plains, including the Nile River Delta and the Ganges-Brahmaputra Delta. Have students fill in the blank notes on the characteristics of deltaic plains.

**Out loud Reading** 

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#### **Conclusion:**

Review the characteristics of each type of depositional plan.

Ask students to explain how these landforms are important for human activity, such as agriculture, transportation, and settlement. Assign a homework assignment where students research a specific type of depositional plan and present their findings to the class.

### Assessment: Students will be assessed based on their participation in class discussion, completion of fill-in-the-blank notes, and their homework assignment. Home Work:

Dear Teachers, you will decide according to your school policy.



Students will be able to identify and describe the features of different types of plains including glaciated plains, lacustrine plains, loess plains, and coastal plains.



Ask students if they have ever seen a plain or flat land, and if they know how these features form. Introduce the topic of different types of plains and explain that they are formed by different processes of geological activity.

Body:

#### **Glaciated Plains**

Explain that a glaciated plain is a flat or gently rolling landscape that was formed by the movement of glaciers during the last Ice Age. Show pictures and diagrams of glaciated plains, including the Great Plains in North America and the pampas in South America. Have students fill in the blank notes on the characteristics of glaciated plains.

#### **Lacustrine Plains**

Explain that a lacustrine plain is a flat or gently rolling landscape that was formed by the deposition of sediments in a lake basin. Show pictures and diagrams of lacustrine plains, including the Great Salt Lake Basin in Utah and the Dead Sea Basin in Israel. Have students fill in the blank notes on the characteristics of lacustrine plains.

#### **Loess Plains**

Explain that a loess plain is a flat or gently rolling landscape that was formed by the deposition of windblown dust and silt. Show pictures and diagrams of loess plains, including the Loess Plateau in China and the Great Hungarian Plain. Have students fill in the blank notes on the characteristics of loess plains.

#### **Coastal Plains**

Explain that a coastal plain is a flat or gently rolling landscape that was formed by the deposition of sediments along the coast by rivers or ocean currents.

Show pictures and diagrams of coastal plains, including the Atlantic Coastal Plain in the United States and the Indo-Gangetic Plain in South Asia.

Have students fill in the blank notes on the characteristics of coastal plains.

#### **Out loud Reading**

#### **Conclusion:**

Review the characteristics of each type of plain.

Ask students to explain how these landforms are important for human activity, such as agriculture, transportation, and settlement. Assign a homework assignment where students research a specific type of plain and present their findings to the class.

#### Assessment:

Students will be assessed based on their participation in class discussion, completion of fill-in-the-blank notes, and their homework assignment.



Ask students if they have ever seen a river and if they know how rivers form and change over time. Introduce the topic of river systems and explain that they are complex networks of interconnected rivers, streams, and tributaries. AZ INTERNATIONAL PUBLISHING HOUSE Body:

#### **Components of a River System**

Explain the four main components of a river system: the source or headwaters, the channel, the floodplain, and the mouth. Show pictures and diagrams of each component and explain their role in a river system. Have students fill in the blank notes on the components of a river system.

#### **River Processes**

Explain the three main processes that shape river systems: erosion, transportation, and deposition. Show videos and pictures of each process in action, and explain how they contribute to the formation of river systems. Have students fill in the blank notes on the processes that shape river systems.

#### **River Features**

Explain the different features that can be found in river systems, such as waterfalls, rapids, meanders, and deltas.

Show pictures and diagrams of each feature, and explain how they are formed and how they contribute to the overall shape of a river system.

Have students fill in the blank notes on the different features of a river system.

**Conclusion:** 

Review the components, processes, and features of a river system.

Ask students to explain how river systems are important for human activity, such as transportation, irrigation, and energy production. Assign a homework assignment where students research a specific river system and present their findings to the class.

## Assessment: Students will be assessed based on their participation in class discussion, completion of fill-in-the-blank notes, and their homework assignment. Home Work: Dear Teachers, you will decide according to your school policy.

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<u>Fo</u>	r Teachers:
How did you meet the individual learning needs of your stud	ents?
Les	son Evaluation:
Strengths	Areas for improvement
Identify a way forward to improve this lesson	

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#### Youth Stage

Explain the youth stage of a river, which is the beginning stage of a river when it is small and has a steep gradient. Show pictures and diagrams of the youth stage and explain the features and processes that occur, such as erosion, high velocity flow, and the formation of narrow V-shaped valleys.

Have students fill in the blank notes on the youth stage of a river.

#### Middle Stage

Explain the middle stage of a river, which is the intermediate stage of a river when it is larger and has a gentler gradient. Show pictures and diagrams of the middle stage and explain the features and processes that occur, such as lateral erosion, meandering, and the formation of floodplains.

Have students fill in the blank notes on the middle stage of a river.

#### **Lower Stage**

Explain the lower stage of a river, which is the final stage of a river when it is near its mouth and has a low gradient.

Show pictures and diagrams of the lower stage and explain the features and processes that occur, such as deposition, meandering, and the formation of deltas.

Have students fill in the blank notes on the lower stage of a river.

#### **Conclusion:**

Review the different stages of a river and the features and processes that occur in each stage.

Ask students to explain how these stages affect the surrounding landscape and human activity, such as agriculture, transportation, and recreation.

Assign a homework assignment where students research a specific river and its stages and present their findings to the class.

#### **Out loud Reading**

#### Assessment:

Students will be assessed based on their participation in class discussion, completion of fill-in-the-blank notes, and their homework assignment.

#### Home Work:

Dear Teachers, you will decide according to your school policy.



For Teachers:	
How did you meet the individual learning needs of your stud	lents?
Les	sson Evaluation:
Strengths	Areas for improvement
Identify a way forward to improve this lesson	
INTERN	ATIONAL

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Students will be able to explain the importance of rivers and describe the effects of rivers on fishing, water, and habitats.



#### Introduction:

Ask students what they know about rivers and their importance. Have them share their ideas with the class. Introduce the topic of the importance and effects of rivers and explain that rivers play a crucial role in our ecosystem and provide various benefits to both humans and animals.

Body:

#### **Importance of Rivers**

Discuss the importance of rivers and their benefits, such as providing water for agriculture, drinking, and recreation. Show pictures and diagrams of the different ways people use rivers and how rivers contribute to our economy and lifestyle. Have students fill in the blank notes on the importance of rivers.

#### **Effects of Rivers on Fishing**

Explain how rivers affect fishing and the different types of fish that can be found in rivers.

Show pictures and diagrams of the fish habitats in rivers and how they are affected by human activities such as pollution and overfishing.

Discuss the importance of sustainable fishing practices and conservation efforts.

Have students fill in the blank notes on the effects of rivers on fishing.

Effects of Rivers on Water and Habitats

Explain how rivers affect the quality and availability of water, as well as the habitats of aquatic animals.

Show pictures and diagrams of the different types of habitats that can be found in and around rivers, such as wetlands and riparian zones.

Discuss the impact of human activities such as damming and deforestation on the quality and quantity of water in rivers and the habitats of aquatic animals.

Have students fill in the blank notes on the effects of rivers on water and habitats.

**Out loud Reading** 

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#### **Conclusion:**

Review the importance and effects of rivers on fishing, water, and habitats.

Ask students to discuss how they can contribute to the conservation and preservation of rivers in their communities.

Assign a homework assignment where students research a local river and its importance and present their findings to the class.

#### Assessment:

Students will be assessed based on their participation in class discussion, completion of fill-in-the-blank notes, and their homework assignment.

#### Home Work:

Dear Teachers, you will decide according to your school policy.

	Week 4	Day 1	
Teacher's Name:	1		Date:
Duration: 45 Mins			
Lesson Plan: Hydroelectricity and Agricultur	e		

Grade level: 7

#### **Objectives:**

Students will be able to describe the process of hydroelectricity and its benefits Students will be able to explain the relationship between hydroelectricity and agriculture Materials: Whiteboard and markers Handouts with fill-in-the-blank notes Computer and projector for videos

#### Introduction:

Ask students if they have ever heard of hydroelectricity and what they know about it.

Introduce the topic of hydroelectricity and its benefits, and explain that it is a renewable energy source that has a direct impact on agriculture.

Body:

#### Hydroelectricity

Explain the process of hydroelectricity, including the construction of dams, water turbines, and generators.

Discuss the advantages of hydroelectricity, such as its sustainability, reliability, and low cost.

Show videos and diagrams of hydroelectric power plants and the generation of electricity.

Have students fill in the blank notes on the process and benefits of hydroelectricity.

#### Agriculture and Hydroelectricity

Explain the relationship between hydroelectricity and agriculture, including the use of water for irrigation and the generation of electricity for farm operations.

Show pictures and diagrams of how hydroelectric power can support agriculture, and the various ways in which agriculture relies on electricity.

Discuss the challenges faced by farmers in areas without access to hydroelectricity.

Have students fill in the blank notes on the relationship between hydroelectricity and agriculture.

#### Case Study: Hydroelectricity and Agriculture in a Local Region

Choose a region where hydroelectric power is generated and where agriculture is practiced. Show pictures and diagrams of how hydroelectricity has impacted agriculture in that region.

Discuss the benefits and challenges faced by farmers in the region due to hydroelectricity. Have students conduct research on the topic and present their findings to the class.

#### **Out loud Reading**

#### **Conclusion:**

Review the process and benefits of hydroelectricity and its relationship with agriculture.

Have students reflect on the importance of renewable energy sources and their impact on different sectors of the economy.

Assign a homework assignment where students research a different renewable energy source and its impact on agriculture or other sectors of the economy.

#### Assessment:

Students will be assessed based on their participation in class discussion, completion of fill-in-the-blank notes, and their homework assignment. They will also be evaluated on their presentation skills during the case study presentation.'

#### Home Work:

Dear Teachers, you will decide according to your school policy.

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<u>For Teachers:</u> How did you meet the individual learning needs of your students?	
Strengths	Areas for improvement
Identify a way forward to impro	ve this lesson
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Introduce the topic of wildlife and recreation, and explain the importance of wildlife conservation and the responsible use of recreational activities.

**Body:** 

#### Local Wildlife

Show pictures of local wildlife and discuss their characteristics and habitats.

Discuss the importance of wildlife conservation and the role of humans in protecting and preserving wildlife.

Show videos of different conservation efforts in their region.

Have students fill in the blank notes on the characteristics and importance of local wildlife.

#### Impact of Human Activities on Wildlife Habitats

Explain the impact of human activities on wildlife habitats, such as deforestation, urbanization, pollution, and climate change.

Discuss the consequences of these activities on wildlife populations and the environment.

Show pictures and videos of the impact of human activities on wildlife habitats.

Have students fill in the blank notes on the impact of human activities on wildlife habitats.

#### **Recreation in Wildlife Areas**

Explain the different forms of recreational activities in wildlife areas, such as hiking, camping, fishing, and wildlife watching.

Discuss the responsible use of these activities and the importance of following park rules and regulations.

Show pictures and videos of responsible recreation in wildlife areas.

Have students fill in the blank notes on the responsible use of recreational activities in wildlife areas.

Case Study: Wildlife Conservation and Recreation in a Local Area

Choose a local area where wildlife conservation and recreation are promoted.

Show pictures and videos of the area and discuss the conservation efforts and recreational activities available.

Have students conduct research on the topic and present their findings to the class.

**Out loud Reading** 

**Conclusion:** 

Review the characteristics and importance of local wildlife, the impact of human activities on wildlife habitats, and the responsible use of recreational activities in wildlife areas.

Have students reflect on the importance of wildlife conservation and their role in protecting and preserving wildlife habitats. Assign a homework assignment where students research a specific wildlife species and their conservation status.

#### **Assessment:**

Students will be assessed based on their participation in class discussion, completion of fill-in-the-blank notes, and their research and presentation on the case study. They will also be evaluated on their understanding of the importance of wildlife conservation and their role in protecting and preserving wildlife habitats.

Home Work:

#### Dear Teachers, you will decide according to your school policy.

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How did you meet the individual learning needs of your students?	
	Lesson Evaluation:
Strengths	Areas for improvement
Identify a way forward to improve	this lesson
INTE	


Students will be able to explain the different methods of protecting against floods and their effectiveness.

Students will be able to discuss the role of transportation in flood protection and identify strategies for transportation during a flood.

**Materials:** 

Computer and projector for presenting visual aids Handouts on flood protection and transportation strategies

#### Introduction (10 minutes):

Begin the lesson by asking students if they have ever experienced a flood or know someone who has. Discuss the impact floods can have on communities.

Show a short video or pictures of a recent flood in a local or international community to illustrate the damage floods can cause.

Body (40 minutes):

Discuss the different methods of protecting against floods, including levees, floodwalls, and flood insurance. Use visual aids to show examples of these methods and discuss their effectiveness.

Hand out a worksheet with a list of flood protection strategies and ask students to categorize them based on their effectiveness.

Discuss the role of transportation in flood protection, including the importance of planning evacuation routes and ensuring transportation infrastructure is built to withstand floods. Show examples of transportation infrastructure that has been impacted by floods.

Hand out a worksheet with transportation strategies during a flood and ask students to identify the best strategy for a given scenario.

**Out loud Reading** 

#### **Conclusion (10 minutes):**

Have students share their findings on the effectiveness of flood protection and transportation strategies. Discuss ways individuals can prepare for a flood and the importance of community cooperation in protecting against floods.

#### Assessment:

Students will complete worksheets on flood protection and transportation strategies. Students will participate in class discussions and group activities.

#### Home Work:

Dear Teachers, you will decide according to your school policy.



BODY				
Solved question attached.				
Week 6 DAY 1				
Teacher's Name: Duration: 50 Mins Title: (Exercise) long questions <b>Q#1 Define a plain and describe the erosional</b> <b>Q#2 In how many stages can river action be di</b> Grade level: 7	plains. ivided? Explain an	y one of them. BODY	Date:	
Solved question attached.				
DAY 2				
Teacher's Name:       Date:         Duration: 50 Mins         Title: (Exercise) long questions         Q#3 What is a river? Describe the work of a river.         Q#4 Mention and explains the features made by a river in its middle stage.         Grade level: 7         BODY				
Solved question attached.		Publishin	g House	
Solved question attached.		-upiisnin	g House	



Students will be able to understand the different stages of a river and their characteristics.

Students will be able to create a model of a river that shows the stages of the river.



#### Introduction (10 minutes)

Begin the lesson by asking students what they know about the stages of a river. Write their responses on the board.

Explain the different stages of a river: the upper course, middle course, and lower course. Provide students with a visual aid, such as pictures of rivers in different stages.

Model Making (40 minutes)

Divide students into groups of three or four.

Provide each group with a large cardboard box, modelling clay, paint, watercolours, glue, construction paper, scissors, a ruler, and markers.

Instruct students to use the cardboard box as the base for their river model.

Have students use the modelling clay to create the topography of the river bed, including the elevation changes and bends.

Once the clay has dried, have students use paint and watercolors to represent the different stages of the river. For example, the upper course could be represented by lighter colors, while the lower course could be represented by darker colors.

Have students use construction paper to create trees and other vegetation along the banks of the river.

Instruct students to use markers to label the different stages of the river.

#### **Presentation (10 minutes)**

Have each group present their river model to the class.

As they present, have students explain the different stages of the river and how they represented them in their model.

Encourage students to ask questions about the different models and stages of the river.

#### **Reflection (5 minutes)**

Have students reflect on what they learned about the different stages of a river and how they represented them in their model.

Ask students to share what they found challenging and what they enjoyed about the activity.

#### Assessment:

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The model will be assessed based on accuracy of the stages of the river and creativity in representing the stages.

Students will be assessed on their ability to explain the different stages of the river and how they represented them in their model during the presentation.

#### week 8

#### **Revision week plan**

Planning a revision week for three lectures requires careful consideration of the course material, the needs of the students, and the goals of the revision week. Here is a sample lesson plan for a revision week with three lectures:

#### Day 1: Review of Key Concepts

Objective: To review key concepts covered in the course so far

#### Activities:

Review the course syllabus and discuss the topics covered so far Encourage students to ask questions and clarify any doubts they may have Use quizzes or group activities to reinforce key concepts and terms Provide additional resources such as readings, videos, or online quizzes to supplement the revision process Day 2: Practice and Application Objective: To provide students with opportunities to practice applying course concepts AZ INTERNATIONAL PUBLISHING HOUSE

#### Activities:

Assign problem sets or case studies related to the course material Encourage students to work in groups to solve problems and discuss their solutions Provide feedback and guidance on student work Use examples and real-world scenarios to illustrate the application of course concepts Day 3: Comprehensive Review and Test-taking Strategies Objective: To help students prepare for the final exam by reviewing all course material and learning effective testtaking strategies

#### **Activities:**

Review the entire course material, highlighting key concepts, terms, and examples Discuss effective test-taking strategies such as time management, prioritizing questions, and elimination techniques Provide practice tests or sample exam questions to help students prepare Encourage students to reflect on their learning and identify areas where they need to focus their efforts Overall, a revision week should be designed to help students consolidate their learning, practice applying course concepts, and prepare for the final exam. Teachers should provide opportunities for students to review and reinforce key concepts, practice problem-solving and application, and receive feedback and guidance on their work. Additionally, test-taking strategies and time management should be discussed to help students feel confident and prepared for the final exam.

#### Test week plan

Planning a test week involves creating a schedule for administering tests and preparing students for the assessments. Here are some steps a teacher can take to plan a test week:

Determine the tests that will be administered during the test week, including the content areas and the types of assessments.

Schedule the tests over the course of the week, making sure to allow enough time for students to complete each test and for the teacher to grade them.

Notify students and parents of the test week schedule well in advance so they can plan accordingly.

Use the week leading up to the test week to review key concepts and skills with students.

Provide students with study guides, review materials, and practice assessments to help them prepare for the tests.

Use the first day of test week to review test-taking strategies and provide students with any last-minute tips or reminders.

Administer the tests according to the schedule, making sure to create a quiet and distraction-free testing environment.

Grade the tests promptly and provide students with feedback on their performance.

Use the results of the tests to inform future instruction and provide individualized support to students who may need additional help.

Finally, celebrate the completion of the test week with students and remind them of their hard work and effort.

## **Publishing House**

Week 9	Day 1				
Teacher's Name:	Date:				
Duration: 45 Mins					
Lesson Plan: Protection from Flood and Transportation					
Grade Level: High School					
Objective:					
Students will be able to explain the different methods of protecting against floods and their effectiveness					
Students will be able to discuss the role of transportation in flood protection and identify strategies for transportation during a flood.					
Materials:					

Computer and projector for presenting visual aids Handouts on flood protection and transportation strategies

Introduction (10 minutes):

Begin the lesson by asking students if they have ever experienced a flood or know someone who has. Discuss the impact floods can have on communities.

Show a short video or pictures of a recent flood in a local or international community to illustrate the damage floods can cause.

Body (40 minutes):

Discuss the different methods of protecting against floods, including levees, floodwalls, and flood insurance. Use visual aids to show examples of these methods and discuss their effectiveness.

Hand out a worksheet with a list of flood protection strategies and ask students to categorize them based on their effectiveness.

Discuss the role of transportation in flood protection, including the importance of planning evacuation routes and ensuring transportation infrastructure is built to withstand floods. Show examples of transportation infrastructure that has been impacted by floods.

Hand out a worksheet with transportation strategies during a flood and ask students to identify the best strategy for a given scenario.

**Out loud Reading** 

#### **Conclusion (10 minutes):**

Have students share their findings on the effectiveness of flood protection and transportation strategies. Discuss ways individuals can prepare for a flood and the importance of community cooperation in protecting against floods.

#### Assessment:

Students will complete worksheets on flood protection and transportation strategies.

Students will participate in class discussions and group activities.

# Home Work: Dear Teachers, you will decide according to your school policy. Day 2 Teacher's Name: Duration: 45 Mins lesson Plan: Major Sources of Water Grade Level: High School Objective:

Students will be able to identify the major sources of water, their characteristics, and their importance for human and ecological systems.

Students will be able to evaluate the challenges and opportunities associated with each water source.

Materials:

Computer and projector for presenting visual aids Handouts on major sources of water Access to internet for research

#### Introduction (10 minutes):

Begin the lesson by asking students to list the sources of water they know. Discuss the importance of water for human and ecological systems, and the impact of water scarcity on societies and the environment.

Present a map of the world and discuss the distribution of water resources across continents and regions.

#### Body (40 minutes):

Introduce the major sources of water, including surface water, groundwater, and precipitation (rain and snow). Discuss their characteristics, availability, and distribution, and the factors that affect their quality and quantity.

Divide the class into groups and assign each group to research one major source of water. Ask them to prepare a brief report on the characteristics, uses, challenges, and opportunities associated with their source of water.

Facilitate a class discussion where each group presents their findings and leads a discussion on the issues raised.

#### **Conclusion (10 minutes):**

Summarize the key points of the lesson, including the major sources of water and their characteristics, challenges, and opportunities. Ask students to reflect on the importance of water sources and the role of individuals and communities in water management and conservation.

#### Assessment:

Students will present a report on the major source of water they researched. Students will participate in class discussions and group activities.

#### Home Work:

Dear Teachers, you will decide according to your school policy.



Students will be able to differentiate between groundwater, surface water, and frozen water, and describe their characteristics and importance for human and ecological systems.

Students will be able to identify the challenges and opportunities associated with water resources.

Computer and projector for presenting visual aids Handouts on water resources Access to the internet for research Clear plastic cups Gravel, sand, and soil

#### Materials:



#### Water

#### Introduction (10 minutes):

Begin the lesson by asking students to identify the different forms of water they know. Discuss the importance of water for human and ecological systems and the impact of water scarcity on societies and the environment.

Introduce the three main types of water resources: groundwater, surface water, and frozen water. Discuss their characteristics, availability, and distribution.

#### Body (40 minutes):

Introduce groundwater and its characteristics, such as its location beneath the ground, the aquifers, and how it is accessed. Discuss its importance and uses and the factors that affect its quality and quantity.

Introduce surface water and its characteristics, such as rivers, lakes, and wetlands. Discuss its importance and uses and the factors that affect its quality and quantity.

Introduce frozen water and its characteristics, such as glaciers and permafrost. Discuss its importance and uses and the factors that affect its quality and quantity.

Conduct an experiment by filling a clear plastic cup with gravel, sand, and soil and adding water to represent a groundwater system. Observe the flow of water and discuss the implications of the experiment.

#### **Out loud Reading**

#### **Conclusion (10 minutes):**

Summarize the lesson's key points, including the different types of water resources and their characteristics, challenges, and opportunities.

Ask students to reflect on the importance of water resources and the role of individuals and communities in water management and conservation.

Assessment:

Students will participate in class discussions and group activities.

Students will complete a short quiz or write a reflection paper on the importance of water resources and their role in water management and conservation.



Whiteboard and markers Handout on the water cycle Map of a river system Rain gauge Measuring cups Procedure:

#### Introduction (10 minutes)

Begin by asking students what they know about rivers and rainfall.

Write their responses on the whiteboard.

Explain that in this lesson, they will be learning about how rainfall affects rivers.

#### The Water Cycle (20 minutes)

Distribute the handout on the water cycle.

Review the water cycle with the class, discussing the different stages and their significance.

Ask students to describe how the water cycle impacts rainfall and river flow.

Factors Affecting Rainfall (20 minutes)

Discuss with the class the different factors that affect the amount of rainfall in a given area, such as elevation, proximity to oceans, and prevailing winds.

Ask students to identify factors that might affect the amount of rainfall in their local area.

#### Measuring Rainfall (20 minutes)

Show students how to use a rain gauge to measure rainfall.

Distribute measuring cups and ask students to collect and measure rainfall in their local area for the next week.

Have students record their measurements and create a chart or graph to show the data.

**River Systems and Rainfall (20 minutes)** 

Show students a map of a river system.

Ask students to identify how rainfall in different areas affects the flow of water in the river system.

Discuss with the class how changes in rainfall can affect river ecosystems and human communities that depend on the river.

**Out loud Reading** 

#### **Conclusion (10 minutes)**

Review the main points of the lesson, emphasizing the importance of rainfall for river flow and ecosystems. Ask students to share any new insights or questions they have about rivers and rainfall.

#### Assessment:

Students will be assessed on their participation in class discussions and activities.

Students will be evaluated based on the accuracy and completeness of their rainfall measurements and data analysis.

Students may be asked to write a short reflection on the importance of rainfall for river ecosystems and human communities

#### Home Work:

Dear Teachers, you will decide according to your school policy.



Students will understand the basics of groundwater and how it affects the formation and maintenance of lakes. Students will be able to identify different types of lakes and understand the characteristics of each type. AZ INTERNATIONAL PUBLISHING HOUSE Students will learn about the importance of lakes in ecosystems and human societies, including recreation, fishing, and drinking water. Students will understand the concept of watersheds and how they impact the quality of water in lakes.



Interactive whiteboard or projector Maps of lakes and watersheds

Diagrams of groundwater flow and aquifers

Handout on the different types of lakes

Worksheets and activities on watersheds and lake ecosystems

#### **Procedure:**

#### Introduction (10 minutes):

Begin the lesson by asking the students to name different bodies of water they know (e.g. rivers, oceans, ponds).

Ask the students if they know what a lake is and where it gets its water from.

Introduce the topic by explaining that lakes are bodies of water that can be found all over the world, and they are formed and maintained by a variety of factors, including rainfall and groundwater.

#### **Direct Instruction (20 minutes):**

Use maps and diagrams to explain the different types of lakes (e.g. tectonic, glacial, volcanic) and their characteristics. Explain how groundwater is an important source of water for lakes, and how it can affect the quality and temperature of the water in a lake.

Describe how watersheds play a crucial role in the health of lakes, and explain how pollution from human activity can impact water quality in lakes.

**Out loud Reading** 

#### **Guided Practice (15 minutes):**

Distribute a handout on the different types of lakes, and have students label and color-code each type on a map. Ask students to identify which types of lakes are common in their area or region, and have them discuss the factors that may have contributed to their formation.

#### **Independent Practice (15 minutes):**

Distribute worksheets and activities on watersheds and lake ecosystems, and have students work on them independently or in small groups.

Have students present their findings to the class, and discuss how watersheds and lake ecosystems impact the environment and human societies.

#### Closure (5 minutes):

Recap the main points of the lesson and ask students to reflect on the importance of lakes in their daily lives. Encourage students to think about ways they can help protect and preserve lakes and watersheds in their communities.

#### Home Work:

Day 3

Dear Teachers, you will decide according to your school policy.

Teacher's Name:\_\_\_\_\_

Duration: 45 Mins

Lesson Plan: Precipitation and Its Types Grade Level: 7

## Publishing House

Date:

#### **Objective:**

Students will understand the concept of precipitation and its role in the water cycle. Students will learn about the different types of precipitation and their characteristics. Students will understand the factors that affect precipitation.

#### Materials:

Whiteboard and markers Handout with information on precipitation and its types Pictures and videos of different types of precipitation A rain gauge (optional) Procedure:

#### Introduction:

Begin the class by asking students if they know what precipitation is and what role it plays in the water cycle.

Introduce the topic of precipitation and explain that it is an important part of the water cycle as it replenishes the earth's water supply.

Ask students to brainstorm different types of precipitation they know and write them on the board.

**Lesson Development:** 

4. Distribute the handout on precipitation and its types to students and ask them to read it.

Discuss the different types of precipitation with the class, including rain, snow, sleet, hail, and drizzle. Show pictures and videos of each type to help students understand their characteristics.

Explain the factors that affect precipitation, including temperature, humidity, and air pressure.

If possible, show students how to use a rain gauge to measure rainfall and discuss how this data can be used to track precipitation levels over time.

Provide examples of how different types of precipitation affect people and the environment, such as snow providing water for plants and animals, and hail causing damage to crops and buildings.

**Out loud Reading** 

#### **Conclusion:**

Summarize the key points of the lesson, emphasizing the importance of precipitation and its different types.

Engage the students in a class discussion to reinforce their understanding of the topic and answer any questions they may have. Assessment:

Have students complete a short quiz or written reflection on the lesson to gauge their understanding of the topic.

Home Work:

Dear Teachers, you will decide according to your school policy.

## **Publishing House**

Week 11	day 1			
Teacher's Name:	Date:			
Duration: 45 Mins				
Grade level: 7				
Subject: Geography				
Topic: Types of rainfall - Cyclonic rainfall				
Ob	jective:			
To understand the concept of cyclonic rainfall				
To learn about the factors that contribute to the occurrence of cyclonic rainfall				
To identify the regions that experience cyclonic rainfall				
To understand the impacts of cyclonic rainfall on the environment and human life				
Materials Needed:				
Whiteboard and markers				
PowerPoint presentation on cyclonic rainfall				
Handouts on cyclonic rainfall				
Internet access for research				
Introduction (10 minutes):				
Begin the lesson by asking students if they know the different types of rainfall. Write their responses on the board.				
Introduce the concept of cyclonic rainfall and explain that it is one of the main types of rainfall.				
Ask students if they know what causes cyclonic rainfall and write their responses on the board.				

Development (40 minutes):

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Use a PowerPoint presentation to provide an overview of cyclonic rainfall, including the factors that contribute to its occurrence, such as low pressure systems, moist air, and strong winds.

Show examples of regions that experience cyclonic rainfall, such as the eastern coast of India and the southeastern coast of the United States.

Discuss the impacts of cyclonic rainfall on the environment and human life, such as floods, landslides, and damage to infrastructure.

#### **Out loud Reading**

#### Activity (10 minutes):

Provide students with handouts on cyclonic rainfall and ask them to read through the information and answer the questions provided. Encourage students to use the internet to research additional information on cyclonic rainfall.

Conclusion (10 minutes):

Review the key points of the lesson, including the definition and causes of cyclonic rainfall, regions that experience it, and its impacts on the environment and human life.

Encourage students to reflect on how they can take action to mitigate the impacts of cyclonic rainfall in their own communities.

Home Work:

Dear Teachers, you will decide according to your school policy.

# Publishing House

#### Day 2

Date:

Teacher's Name:

Duration: 45 Mins Title: Understanding Orographic and Convectional Rainfall Grade Level: 7

#### **Objectives:**

Students will be able to explain the difference between orographic and convectional rainfall.

Students will be able to identify the conditions required for orographic and convectional rainfall to occur.

Students will be able to describe the effects of orographic and convectional rainfall on the environment.

Students will be able to analyze the distribution and frequency of orographic and convectional rainfall in their local area.

#### Materials:

PowerPoint presentation on orographic and convectional rainfall

Whiteboard and markers

Handouts on orographic and convectional rainfall

World map and a map of the local area

Internet access for research

Introduction (15 minutes):

Begin by asking students if they have ever experienced rainfall in their area and how it affects their daily life.

Introduce the topic of the lesson by explaining that there are different types of rainfall, and we will be focusing on two of them: orographic and convectional rainfall.

Ask students if they have heard of these types of rainfall before and what they know about them.

Main Body (60 minutes):

Use the PowerPoint presentation to explain the difference between orographic and convectional rainfall, including the conditions required for each to occur and the processes involved.

Divide the class into small groups and provide them with handouts on orographic and convectional rainfall. Instruct them to read the handouts and identify the key points for each type of rainfall.

Bring the class back together and have each group share their findings, highlighting the similarities and differences between orographic and convectional rainfall.

Using the world map and the map of the local area, ask students to identify regions where orographic and convectional rainfall are likely to occur.

Discuss the effects of orographic and convectional rainfall on the environment, such as erosion, landslides, and flooding. Have students conduct research on the distribution and frequency of orographic and convectional rainfall in their local area and present their findings to the class.

#### **Out loud Reading**

#### **Conclusion (15 minutes):**

Review the key points of the lesson and ask students to share their thoughts and reflections on what they have learned. Reinforce the importance of understanding different types of rainfall for environmental conservation and disaster management. Assign a project for students to create a poster or presentation on the impacts of orographic and convectional rainfall in a specific region or country.

**Assessment:** 

Class participation during the discussion and group work Completion of the handouts and research assignment

Quality of the final project on the impacts of orographic and convectional rainfall.

 Home Work:

 Dear Teachers, you will decide according to your school policy.

 Day 3

 Teacher's Name: \_\_\_\_\_\_ Date: \_\_\_\_\_\_

 Duration: 45 Mins

 Title: Exploring the Water Cycle

 Grade level: 7

 Objective:

 To understand the components of the water cycle.

 To identify the stages of the water cycle.

 To learn about the importance of the water cycle in the environment.

Materials:

Interactive whiteboard Computer or tablet with internet access Water cycle diagram worksheet Coloured pencils or markers Small containers (e.g. cups, bowls)

Publishing House

#### Water

#### Introduction (10 minutes):

Display the water cycle diagram on the interactive whiteboard and ask the students if they have ever seen it before.

Ask the students to share what they know about the water cycle.

Provide a brief explanation of the water cycle and its components (evaporation, condensation, precipitation, and collection).

Activity 1: Stages of the Water Cycle (20 minutes):

Distribute the water cycle diagram worksheet and colored pencils or markers to each student.

Instruct the students to label and color the different stages of the water cycle (evaporation, condensation, precipitation, and collection).

Ask the students to share their completed diagrams with the class, and explain each stage of the water cycle.

Activity 2: Demonstrating the Water Cycle (20 minutes):

Divide the students into small groups.

Provide each group with a small container of water.

Ask the students to place their containers in a sunny area of the classroom and observe them for a few minutes.

Instruct the students to cover their containers with plastic wrap and place a small rock in the center of the plastic wrap.

Ask the students to observe their containers again for a few minutes and discuss what they observe.

Explain to the students that the water in their containers is undergoing the process of evaporation and condensation, which are two stages of the water cycle.

**Out loud Reading** 

Conclusion (10 minutes):

Recap the stages of the water cycle and their importance in the environment. Ask the students to share one thing they learned about the water cycle during the lesson.

#### **Assessment:**

Observe student participation during group work.

Evaluate the completion of the water cycle diagram worksheet.

Evaluate the accuracy of the students' explanations of the stages of the water cycle during class discussion.

### Home Work: Dear Teachers, you will decide according to your school policy. Week 12 Day 1

Date:

Teacher's Name:

**Duration: 45 Mins** 

Lesson Plan: Evaporation, Transpiration, and Cloud Formation Grade Level: 7

#### **Objective:**

Students will be able to describe and explain the processes of evaporation, transpiration, and cloud formation in the water cycle.

#### **Materials:**

**Publishing House** 

Whiteboard and markers Diagrams of the water cycle, evaporation, and transpiration

#### **Procedure:**

#### Introduction (5 minutes):

Ask students what they know about the water cycle.

Introduce the topics of evaporation, transpiration, and cloud formation as processes involved in the water cycle.

Ask students to share their prior knowledge of these topics.

#### **Evaporation (15 minutes):**

Define evaporation as the process by which water changes from a liquid to a gas (water vapor).

Discuss the factors that affect evaporation, such as temperature, humidity, wind, and surface area.

Use diagrams to explain how evaporation occurs from bodies of water, plants, and other surfaces.

Give examples of how evaporation is important in the water cycle, such as how it contributes to the formation of clouds.

#### Transpiration (15 minutes):

Define transpiration as the process by which plants release water vapor through small pores in their leaves.

Explain how transpiration is related to photosynthesis and plant growth.

Use diagrams to show how water moves through plants and how it is released into the atmosphere through transpiration.

Discuss the role of transpiration in the water cycle and how it contributes to the moisture content of the air.

#### **Cloud Formation (10 minutes):**

Introduce the idea that clouds are formed from water vapor in the air.

Use visual aids to show how clouds form through the process of condensation.

Explain how temperature, humidity, and air pressure affect cloud formation.

Discuss the different types of clouds and how they are classified.

**Out loud Reading** 

#### Conclusion (5 minutes):

Summarize the key points of the lesson, including the processes of evaporation, transpiration, and cloud formation. Ask students to reflect on what they have learned and how it relates to the water cycle.

#### Assessment:

Students will create a diagram of the water cycle that includes the processes of evaporation, transpiration, and cloud formation. Students will explain each process in their own words and how it contributes to the water cycle.

#### Home Work:

Dear Teachers, you will decide according to your school policy.

Day 2				
Teacher's Name:	Date:			
Duration: 45 Mins				
Lesson Plan: Rainwater and Sewage Water				
Grade level: 7				

#### **Objectives:**

Students will be able to understand the concepts of rainwater and sewage water.

Students will be able to identify the sources and composition of rainwater and sewage water.

Students will be able to understand the importance of rainwater harvesting and the treatment of sewage water.

Materials:

Whiteboard and markers

PowerPoint presentation on rainwater and sewage water

Images and diagrams of rainwater harvesting systems and sewage treatment plants

Handouts on rainwater harvesting and sewage treatment methods

Quiz or worksheet to assess student understanding

#### Introduction (10 minutes):

Begin by asking the students if they know what rainwater and sewage water are.

Write the terms on the board and ask students to share their prior knowledge about them.

Explain that rainwater is the precipitation that falls from the sky and sewage water is the wastewater generated from human activities.

#### Body (40 minutes):

Use a PowerPoint presentation to explain the concept of rainwater and sewage water, their sources, and composition.

Discuss the importance of rainwater harvesting and its benefits. Show images and diagrams of rainwater harvesting systems and explain how they work.

Discuss the process of sewage treatment and the different methods used for sewage treatment. Show images and diagrams of sewage treatment plants and explain how they work.

Hand out worksheets or handouts on rainwater harvesting and sewage treatment methods.

Have students work in pairs or small groups to discuss the worksheets or handouts and share their ideas with the class.

**Out loud Reading** 

**Conclusion (10 minutes):** 

Summarize the main points of the lesson and ask students to share their thoughts on the importance of rainwater harvesting and sewage treatment.

Use a quiz or worksheet to assess student understanding of the topic.



The teacher will begin the class by asking students to share their knowledge about sewage water. The teacher will then explain that sewage water is water that has been used for various purposes and then collected and treated to remove impurities. The teacher will also explain that sewage water can be used for many different purposes, such as irrigation, industry, and energy production.

#### **Direct Instruction (20 minutes):**

The teacher will use the whiteboard and markers to explain the different uses of sewage water. The teacher will explain that one of the main uses of sewage water is for irrigation. Sewage water can be treated and used to water plants and crops. This is a cost-effective and sustainable way of providing water for agriculture. The teacher will also explain that sewage water can be used for industrial purposes, such as in cooling systems and boiler feed water. Additionally, the teacher will explain that sewage water can be used for energy production through the process of anaerobic digestion.

#### **Guided Practice (15 minutes):**

The teacher will show videos on the uses of sewage water and ask students to take notes. After the videos, the teacher will distribute handouts with more detailed information on the different uses of sewage water. The teacher will ask students to read the handouts and highlight the key points.

#### Independent Practice (15 minutes):

The teacher will ask students to write a short paragraph explaining one of the uses of sewage water they found interesting or surprising. Students will be asked to share their paragraphs with the class.

**Out loud Reading** 

#### **Conclusion (5 minutes):**

The teacher will recap the main points covered in the class and ask students to share their thoughts on the uses of sewage water. The teacher will also encourage students to think critically about the importance of using sewage water sustainably and responsibly.

#### Assessment:

Students will be assessed based on their participation in class discussions and their written paragraphs. The paragraphs will be graded based on the students' ability to summarize and explain the key points covered in the lesson.

#### Home Work:

Dear Teachers, you will decide according to your school policy.



Students will understand the concept of biogas and how it is produced.

Students will be able to identify the advantages of using biogas as an alternative energy source.

Students will be able to explain the environmental benefits of using biogas.

#### Materials:

Whiteboard and markers Handouts on biogas production and its advantages Computer with projector for showing videos

## **Publishing House**

#### Sample of biogas

#### Introduction (15 minutes):

Begin by asking students if they have heard of biogas and if they know what it is. Write their responses on the whiteboard. Provide a brief overview of biogas and how it is produced, explaining the process of anaerobic digestion. Show a short video on biogas production and the different materials that can be used to produce it.

Activity 1: Advantages of Biogas (30 minutes):

Divide students into small groups and distribute handouts on the advantages of biogas.

In their groups, students will read and discuss the advantages of using biogas as an alternative energy source. These advantages include: reducing greenhouse gas emissions, reducing dependence on fossil fuels, reducing waste and improving sanitation, and providing a source of renewable energy.

Each group will present their findings to the class.

#### Activity 2: Environmental Benefits of Biogas (30 minutes):

Show a short video on the environmental benefits of using biogas. In their groups, students will discuss the environmental benefits of using biogas, such as reducing air and water pollution, improving soil quality, and reducing the use of chemical fertilizers. Each group will present their findings to the class.

**Out loud Reading** 

Conclusion (15 minutes):

Review the key concepts covered in the lesson, emphasizing the advantages and environmental benefits of using biogas. Pass around a sample of biogas and encourage students to smell it.

Ask students to share their thoughts on the advantages of biogas and how it can be used as an alternative energy source. Provide additional resources for students who want to learn more about biogas and its advantages.

#### **Assessment:**

Students will be assessed on their participation in the small group discussions and presentations, as well as their understanding of the advantages and environmental benefits of using biogas.

Home Work: Dear Teachers, you will decide according to your school policy. Day 2							
					Teacher's Name:		Date:
					Duration: 45 Mins		
Lesson Plan: Disadvantages of Biogas							
Grade Level: 7							

#### **Objective:**

Students will be able to understand the disadvantages of biogas as an alternative energy source. Students will be able to identify the environmental, social, and economic impacts of biogas. Materials:

## **Publishing House**

Whiteboard and markers
#### Handouts on the disadvantages of biogas Internet access

#### Introduction (10 minutes):

Begin by asking students if they have heard of biogas as an alternative energy source.

Briefly explain what biogas is and how it is produced.

Ask students to brainstorm some advantages of using biogas as an alternative energy source.

#### Activity (40 minutes):

Distribute the handouts on the disadvantages of biogas to the students.

Ask students to read through the handouts and take notes on the environmental, social, and economic impacts of biogas.

After reading, divide students into groups and ask them to discuss their notes and come up with a list of disadvantages of biogas.

Each group will present their list to the class and the teacher will write the common points on the board.

As a class, discuss each point and ask students to provide examples or evidence to support their ideas.

#### **Out loud Reading**

#### Conclusion (10 minutes):

Summarize the disadvantages of biogas and discuss how they compare to the advantages previously brainstormed. Ask students to reflect on what they have learned and consider whether they still think biogas is a viable alternative energy source. Assign a written reflection on the topic for homework, encouraging students to include their own opinions and ideas.

#### Assessment:

Students will be assessed on their participation in group discussions and their ability to identify and explain the disadvantages of biogas in the class discussion.

Written reflections will be assessed based on the student's ability to articulate their thoughts and opinions on the topic, as well as their use of evidence to support their arguments.

#### Home Work:

Dear Teachers, you will decide according to your school policy.





#### I. Introduction (10 minutes)

Begin the lesson by asking students why water is important and what they know about water purification. Discuss the importance of clean water and the risks of consuming contaminated water. Introduce the topic of water purification and its importance.

II. Methods of Water Purification (20 minutes)

Provide handouts with information on different water purification methods, such as filtration, sedimentation, chlorination, boiling, and chemical treatments.

Go over each method in detail, discussing how it works, its advantages and disadvantages, and where it is commonly used. Encourage students to ask questions and provide real-life examples of when they might use each method.

III. Water Purification Experiment (30 minutes)

Divide students into small groups and provide them with water samples from different sources. Ask students to design and conduct an experiment to purify the water samples using one of the methods discussed in class. Provide filtering materials, charcoal, iodine tablets, sterilizing tablets, and pH test strips for students to use. Ask students to record their observations and data in a table or graph.

Allow time for students to share their results with the class and discuss the effectiveness of their chosen method.

IV. Environmental Impacts (15 minutes)

Discuss the potential environmental impacts of different water purification methods. Ask students to think about how different methods might affect aquatic life, water quality, and natural resources. Encourage students to think critically about the trade-offs between different methods and the importance of balancing human needs with environmental protection.

#### **Out loud Reading**

#### V. Conclusion (5 minutes)

Summarize the key points of the lesson and ask students to reflect on what they learned. Provide resources for students to learn more about water purification and encourage them to continue exploring the topic on their own.

#### Assessment:

Observations during the water purification experiment Participation in class discussions and activities Completion of a short written reflection on the importance of water purification and the potential environmental impacts of different

Home Work:

Dear Teachers, you will decide according to your school policy.

## INTERNATIONAL Publishing House

methods.

	Week 14	day1-2-3		
Teacher's Name:			Date:	
Duration: 50 Mins				
Title: (Exercise) MCQ's +Short questions				
Grade level: 7				
BODY				
Solved question attached.				
	Week 15	DAY 1		
Teacher's Name:	1		Date:	
Duration: 50 Mins				
Title: (Exercise) long questions				
Q#1 Mention and describe the major sources of Fresh water in the World.				
Q#2 Describe any two sources of Fresh water in Pakistan.				
Grade level: 7				
BODY				
Solved question attached.				
DAY 2				

Teacher's Name: Duration: 50 Mins Title: (Exercise) long questions Q#3 Name and define six forms of precipitation. Q#4 Write a comprehensive note on Orographic precipitation. Grade level: 7	Date:			
	BODY			
Solved question attached.				
Day3				
Teacher's Name: Duration: 50 Mins Title: (Exercise) long questions <b>Q#5 What is Bio-Mass? Describe its advantage.</b> <b>Q#6 Explain the different methods to purify water.</b> Grade level: 7	Date:			
BODY				
Solved question attached.				
Project				

Teacher's Name:
Date:

Duration: 50 Mins

Title: project

Grade level: 7

Subject: Geography

Topic: Distribution of Water in the World

#### **Objectives:**

Students will be able to identify the different sources of water on Earth. Students will be able to understand the distribution of water on Earth. Students will be able to create a chart showing the distribution of water in the world.

#### Materials Needed:

World map Chart paper Colored markers Internet access Handouts with information on water distribution

Introduction (10 minutes):

Ask the students what they know about the distribution of water on Earth.

Explain that water is essential for life and that it is important to understand how it is distributed around the world. Show the students a world map and point out the major bodies of water.

#### Body (40 minutes):

Give each student a handout with information on water distribution. Discuss the different sources of water, including oceans, lakes, rivers, and groundwater. Talk about the different types of water use, including agriculture, industry, and domestic use. Divide the students into small groups and assign each group a continent. Have each group research and discuss the water sources and uses in their assigned continent. Instruct each group to create a chart showing the distribution of water on their continent.

#### **Conclusion (10 minutes):**

Have each group present their chart to the class.

Discuss the similarities and differences in water distribution between the different continents.

Summarize the main points of the lesson, emphasizing the importance of water conservation and management.

#### **Assessment:**

Students will be assessed on their participation in group discussions and chart creation. Students will also be assessed on their understanding of water distribution through their participation in class discussions.

#### **Revision week plan**

Planning a revision week for three lectures requires careful consideration of the course material, the needs of the students, and the goals of the revision week. Here is a sample lesson plan for a revision week with three lectures:

Day 1: Review of Key Concepts

Objective: To review key concepts covered in the course so far

#### **Activities:**

Review the course syllabus and discuss the topics covered so far

Encourage students to ask questions and clarify any doubts they may have

Use quizzes or group activities to reinforce key concepts and terms

Provide additional resources such as readings, videos, or online quizzes to supplement the revision process

Day 2: Practice and Application

Objective: To provide students with opportunities to practice applying course concepts

#### Activities:

Assign problem sets or case studies related to the course material

Encourage students to work in groups to solve problems and discuss their solutions

Provide feedback and guidance on student work

Use examples and real-world scenarios to illustrate the application of course concepts

Day 3: Comprehensive Review and Test-taking Strategies

Objective: To help students prepare for the final exam by reviewing all course material and learning effective testtaking strategies

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#### Activities:

Review the entire course material, highlighting key concepts, terms, and examples Discuss effective test-taking strategies such as time management, prioritizing questions, and elimination techniques Provide practice tests or sample exam questions to help students prepare Encourage students to reflect on their learning and identify areas where they need to focus their efforts Overall, a revision week should be designed to help students consolidate their learning, practice applying course concepts, and prepare for the final exam. Teachers should provide opportunities for students to review and reinforce key concepts, practice problem-solving and application, and receive feedback and guidance on their work. Additionally, test-taking strategies and time management should be discussed to help students feel confident and prepared for the final exam.

#### Test week plan

Planning a test week involves creating a schedule for administering tests and preparing students for the assessments. Here are some steps a teacher can take to plan a test week:

Determine the tests that will be administered during the test week, including the content areas and the types of assessments.

Schedule the tests over the course of the week, making sure to allow enough time for students to complete each test and for the teacher to grade them.

Notify students and parents of the test week schedule well in advance so they can plan accordingly.

Use the week leading up to the test week to review key concepts and skills with students.

Provide students with study guides, review materials, and practice assessments to help them prepare for the tests.

Use the first day of test week to review test-taking strategies and provide students with any last-minute tips or reminders.

Administer the tests according to the schedule, making sure to create a quiet and distraction-free testing environment.

Grade the tests promptly and provide students with feedback on their performance.

Use the results of the tests to inform future instruction and provide individualized support to students who may need additional help.

Finally, celebrate the completion of the test week with students and remind them of their hard work and effort.

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